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(71) Applicant *(for all designated States except US)*: THE JOHNS HOPKINS UNIVERSITY [US/US]; 720 Rutland Avenue, Baltimore, MD 21205 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: TOWNSEND, Craig, A. [US/US]; 116 Midhurst Road, Baltimore, MD 21212 (US). DICK, James, D. [US/US]; 15744 Dover Road, Upperco, MD 21155 (US). PASTERNACK, Gary, R. [US/US]; 311 Edgevale Road, Baltimore, MD 21212 (US). KUHAJDA, Francis, P. [US/US]; 1211 Broadway Road, Lutherville, MD 21209 (US). PARRISH, Nicole, M. [US/US]; Apartment 201, 3185 Pine Orchard Lane, Ellicott City, MD 21042 (US).

(74) Agents: POSORSKE, Laurence, H. et al.; Baker & Botts, L.L.P., The Warner, 1299 Pennsylvania Avenue, N.W., Washington, DC 20004 (US).

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(57) Abstract

This invention provides methods for treating a mycobacterial infection by administering to an animal a pharmaceutical composition containing a compound having the formula $R–SO_n–Z–CO–Y$, where R is an alkyl group having 6–20 carbons; Z is a radical selected from $–CH_2–$, –O–, and –NH–, two of these radicals coupled together, or $–CH_2=CH_2–$; Y is $–NH_2$, $O–CH_2–C_6H_5$, $–CO–CO–O–CH_3$, or $O–CH_3$; and n is 1 or 2. It has been discovered that these compounds inhibit growth of microbial cells which synthesize α–substituted, β–hydroxy fatty acids, particularly corynemycolic acid, nocardic acid, and mycolic acid. These compounds may be used to inhibit growth of mycobacterial cells, such as *Mycobacterium tuberculosis*, drug–resistant *M. tuberculosis*, *M. avium intracellulare*, and *M. leprae*.